

IN THE CLAIM

Please amend claims 1, 12, 27, 30 and 32 as follows:

1. (Presently Amended) A method of providing a human-computer user interface, comprising the steps of:

- (a) receiving an input through a user interface providing the user with navigational tools for defining and retrieving objects based on a resource locator thereof;
- (b) providing an object search engine for selecting a set of objects according to ~~an a~~ user-defined content criteria from a larger set of objects including objects of varying relevance to the user-defined content criteria accessed through the user interface and returning respective resource locators of selected objects, the object search engine employing at least first and second algorithms for selecting respectively different portions of the set of objects; and
- (c) providing ~~an a~~ hierarchal organizational structure, having at least one level of the hierarchal organizational structure has at least two resource locators for objects organized therein, in graphic format for the set of objects selected respective resource locators of selected objects, for presentation to the user through the user interface, wherein at least a portion of resource locators for the selected objects selected according to the first algorithm are automatically organized within in the hierarchal organizational structure based on an associated object content, and resource locators for objects selected according to the second algorithm are automatically organized within the hierarchal organizational structure based on at least one criterion independent of an associated object content.

2. (Presently Amended) The method according to claim 1, further comprising the step of inserting objects extrinsic to the user-defined ~~search content~~ criteria into the hierarchal organizational structure of selected objects.

3. (Presently Amended) The method according to claim 1 2, wherein ~~the extrinsic objects comprise commercial messages~~ the first algorithm selects objects based on a relevance of an associated content with the user-defined content criteria and the second algorithm selects an advertisement object selected based on the user-defined content criteria.

4. (Presently Amended) The method according to claim 1 2, wherein ~~the extrinsic~~ the first algorithm selects objects based on a relevance of an associated content with the user-defined content criteria and the second algorithm selects objects ~~comprise~~ objects identified through a collaborative filter process.

5. (Presently Amended) The method according to claim 1 2, wherein ~~the extrinsic~~ the first algorithm selects objects based on a relevance of an associated content with the user-defined content criteria and the second algorithm selects objects which are contextually related to the user-defined ~~search~~ content criteria.

6. (Presently Amended) The method according to claim 1 2, wherein the ~~extrinsic~~ objects selected by both the first and second d algorithms are contextually appropriate for a respective positioning within the hierarchal organizational structure.

7. (Original) The method according to claim 1, wherein the hierarchal organizational structure comprises a tree structure displaying at least three hierarchal levels.

8. (Original) The method according to claim 1, wherein the hierarchal organizational structure comprises a hyperbolic tree structure.

9. (Original) The method according to claim 1, wherein the hierarchal organizational structure comprises a display generated by a hyperbolic tree applet.

10. (Currently Amended) The method according to claim 3, wherein a commercial message sponsor pays for ~~delivery of commercial messages~~ advertisement objects based on a semantic context of message delivery.

11. (Currently Amended) The method according to claim 3, wherein a commercial message sponsor pays for delivery of ~~commercial messages~~ advertisement objects based on a value of a subsequent commercial transaction with the user.

12. (Currently Amended) The method according to claim 3, wherein the ~~extrinsic~~ advertisement objects are identified through a collaborative filter process.

13. (Currently Amended) The method according to claim 3, wherein the ~~extrinsic~~ advertisement objects are contextually related to the user-defined ~~search~~ content criteria.

14. (Original) The method according to claim 1, wherein the hierarchal organizational structure comprises a state independent information object.

15. (Currently Amended) The method according to claim 1, further comprising the step of ranking members of the set of selected objects ~~within a single hierarchal class~~ based on a correspondence to the user-defined content criteria.

16. (Currently Amended) The method according to claim 1, further comprising the step of receiving a ranking preference from the user for a ranking method for ranking members of the set of selected objects ~~within a single hierarchal class~~.

17. (Currently Amended) The method according to claim 1, further comprising the step of ~~graphically~~ representing a history of access to the set of objects.

18. (Currently Amended) The method according to claim 1, further comprising the steps of manipulating an object within the hierarchal organizational structure through the graphic user interface, and requesting information content ~~corresponding to~~ associated with the manipulated object.

19. (Original) The method according to claim 1, wherein at least two distinct predetermined hierarchical organizations of information are provided, each having at least three hierarchal levels for a universe of objects, further comprising the steps of:

(a) defining a relevant hierarchy from among the at least two distinct predetermined hierarchical organizations of information;

- (d) displaying links to the set of objects according to the relevant hierarchy; and
- (e) storing at least a subset of the presented links within the relevant hierarchy as a state independent object.

20. (Original) The method according to claim 1, further comprising the step of defining a user profile, for modifying the selection by the object search engine, and wherein user profile is stored in an encrypted form which is resistant to detailed interrogation.

21. (Currently Amended) The method according to claim 1, further comprising the step of presenting the hierarchal organizational structure with an applet, wherein the returned respective resource locators of selected objects are transmitted to the applet, which formats the set of selected objects in the a graphic format hierarchal organizational structure, based on a relationship of a content corresponding to each object.

22. (Original) The method according to claim 1, further comprising the step of providing an adaptive user profile applet, comprising a collaborative filter for initial classification, which subsequently is modified based on user observation, wherein the user-defined content criteria is based on an explicit user input and a function of the adaptive user profile applet.

23. (Original) The method according to claim 1, further comprising the step of defining the hierarchal organizational structure as a user taxonomic hierarchy of interests, correlating the user taxonomic hierarchy with a set of references taxonomic hierarchies, and modifying the user taxonomic hierarchy based on sets of rules associated with a reference taxonomic hierarchies having high correlations.

24. (Original) The method according to claim 1, wherein at least one object has an associated digital rights rule, further comprising the step of applying digital rights rules to accesses of objects by the user.

25. (Original) The method according to claim 24, wherein at least one digital rights rule provides a positive incentive to the user.

26. (Original) A computer readable medium having stored thereon a software program for executing the method according to claim 1.

27. (Currently Amended) A system for providing a human-computer user interface, comprising:

(a) a set of navigational tools for defining and retrieving objects based on a resource locator thereof;

(b) an object search engine for selecting a set of objects according to a user-defined content criterion and returning respective resource locators of selected objects, the object search engine employing at least first and second schemes for selecting objects; and

(c) means for presenting ~~an a~~ hierarchal organizational structure ~~in graphic format~~ for the set of selected objects, wherein at least one level of the hierarchal organizational structure has at least two objects organized therein, and wherein at least a portion of the selected objects are organized within the hierarchal organizational structure based on an associated ~~object~~ content and a respective scheme employed to select that object, the hierarchal organizational structure further including at least one object extrinsic to the selected objects.

28. (Currently Amended) The system according to claim 27, wherein objects extrinsic to the user-defined search criteria are inserted into the hierarchal organizational structure of selected objects based on a semantic relationship to at least one of the search criteria and selected objects.

29. (Currently Amended) The system according to claim 27 ~~28~~, wherein the extrinsic objects comprise commercial messages.

30. (Currently Amended) The method according to claim 27 ~~28~~, wherein the extrinsic objects comprise objects are identified through a collaborative filter process.

31. (Currently Amended) The system according to claim ~~27~~ 28, wherein the extrinsic objects are contextually related to the user-defined ~~search~~ content criteria.

32. (Currently Amended) A method of visualization of a set of objects ~~elements~~, comprising:

(a) defining a taxonomic hierarchy ~~of objects~~, each hierarchal level within the hierarchy, below a top level, having at least one object, the at least one ~~element~~ object having one parent hierarchal object and optionally a set of child objects, with a set of content objects populating the hierarchy, wherein at least one level of the hierarchy has at least two objects;

(b) defining, based on a user input, a selected object within the hierarchy for examination; and

(c) generating a display presenting the selected object ~~element~~ and any child objects thereof; a representation of parental objects within the hierarchy, ~~with a representation of a hierarchal representation thereof~~; wherein each of the parent and child objects is associated with a hyperlink, a selection of a respective hyperlink serving to transform that ~~element~~ object into the selected element, wherein when an object representing information content is selected, an associated set of related objects extrinsic to the defined hierarchy of objects and related to the taxonomic hierarchal level is displayed.

33. (Original) The method according to claim 32, wherein the associated set of related objects is defined by a process of collaborative filtering.

34. (Original) The method according to claim 32, wherein the content object defines a product promoted for sale.

35. (Currently Amended) A method of visualization of a set of elements, comprising:

(a) defining a natural hierarchy of objects wherein at least one level of the hierarchy has at least two objects;

(b) receiving a user limiter to define a set of objects in the ~~natural~~ hierarchy having natural hierarchal relationships;

- (c) inserting at least one object extrinsic to the user limiter within the ~~natural~~ hierarchy of objects to provide artificial hierarchal relationships;
- (d) displaying the set of objects and extrinsic objects with a graphic representation of the natural and artificial hierarchal relationships.

36. (Original) The method according to claim 35, wherein the inserting is controlled by a process of collaborative filtering.

37. (Currently Amended) A method of providing a human-computer user interface, comprising the steps of:

- (a) providing an object browser;
- (b) receiving ~~an~~ a user-defined content-based selection criteria and returning respective resource locators of selected objects consistent with the criteria and respective resource locators of objects associated with the criteria; and
- (c) displaying the respective resource locators of the selected objects through the object browser, within a ~~content-dependent~~ hierarchy, wherein objects selected based on content are placed in the hierarchy in content-dependent manner, and objects selected based on association with the criteria are placed in the hierarchy in association-dependent manner, wherein at least one level of the hierarchy has at least two objects.

38. (Previously Added) The method according to claim 37, wherein the hierarchy is adaptive to the set of selected objects.

39. (Currently Amended) The method according to claim 37, wherein the ~~content dependent hierarchy comprises a resource locator for at least one extrinsic object, the extrinsic object being outside~~ object has the set of selected objects and having a semantic relationship with relation to at least one of the selection criteria and the selected objects.

40. (Currently Amended) The method according to claim ~~37~~ 39, wherein the at least one object outside the set of selected objects is associated with a subsidy.

41. (New) The method according to claim 1, wherein objects selected according to the at least first and second algorithms are differentiated within the hierarchal organizational structure.

42. (New) The method according to claim 1, wherein at least one algorithm for selecting objects operates to generate a commercial subsidy for use of the object search engine.

43. (New) The method according to claim 1, wherein at least one algorithm for selecting objects operates to generate a commercial subsidy for use of the object search engine.

44. (New) The method according to claim 1, further comprising the step of ranking members of the set of selected objects independent of the user-defined content criteria.

45. The method according to claim 35, wherein the inserting is based on an advertising payment.

46. (New) A method, comprising the steps of:

- (a) receiving an input from a user comprising a content selection criteria;
- (b) selecting a set of objects in dependence on the content selection criteria;
- (c) automatically populating a hierarchal organizational structure with the selected objects, in dependence on an associated selected object content; and
- (d) additionally automatically populating the hierarchal organization structure with a set of additional objects selected independent of an associated selected object content, the additional objects being populated in dependence on a relation of a respective additional object and the input,

wherein the hierarchal organization structure has at least one level having at least two objects.

47. (New) The method according to claim 46, wherein the set of additional objects comprises objects associated with a commercial subsidy.

48. (New) The method according to claim 46, wherein the hierarchal organizational structure is predetermined.

49. (New) The method according to claim 46, wherein the hierarchal organizational structure is defined in an ad hoc manner.

50. (New) The method according to claim 46, wherein the hierarchal organizational structure is communicated electronically to a user.

51. (New) The method according to claim 46, wherein the hierarchal organizational structure is communicated graphically to a user.

52. (New) The method according to claim 46, wherein the hierarchal organizational structure is communicated in an interactive form to a user.

53. (New) A system, comprising:

- (a) an input for receiving a content selection criteria from a user;
- (b) at least one processor for selecting a set of objects in dependence on the content selection criteria and automatically populating a hierarchal organizational structure with the selected objects, in dependence on an associated selected object content, and additionally automatically populating the hierarchal organization structure with a set of additional objects selected independent of a respective additional object content, in dependence on the input, the hierarchal organization structure having at least one hierarchal level having at least two objects; and
- (c) an output for communicating at least a portion of the populated hierarchal organization structure with the user.

54. (New) The system according to claim 53, further comprising an accounting system for accounting for a selection of said additional objects.

55. (New) The system according to claim 53, wherein the hierarchal organizational structure is predetermined.

56. (New) The system according to claim 53, wherein the hierarchal organizational structure is defined in an ad hoc manner.

57. (New) The method according to claim 1, wherein

(a) the user-defined content criteria comprises a semantic query,

(b) the hierarchal organizational structure is taxonomic, objects selected according to the first algorithm being organized within the hierarchy based on a semantic classification of the respective object content, objects selected according to the second algorithm being organized based on a semantic relation of the selected object to the semantic query.

58. (New) The method according to claim 1, further comprising the steps of producing a ranking for at least a portion of the selected objects within a single hierarchal level; and presenting the selected objects within the hierarchal organization structure in dependence on the ranking.